THE GENESEE FARMER.

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By Luther Tucker & Co.
EDITORS AND PUBLISHERS.

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SATURDAY, JANUARY 18, 1834.

The readers of the "Genesee Farmer," especially for the last year, will doubtless cordially participate in the satisfaction with which we announce that Judge BUEL of Albany, President of the State Agricultural Society, will continue his contributions; for we presume it is generally conceded that no man is better qualified to communicate to his agricultural brethren information on pursuits wherein he has proven himself so eminently successful. Assurances of assistance, as heretofore, in the Editorial Department, have also been received from DAVID THOMAS, who was for several years President of the Agricultural Society in Cayuga county, and whose scientific and practical knowledge of the subjects to which the Farmer is devoted, qualifies him in an eminent degree to impart interest and instruction to its pages. Many of his communications as a correspondent, are well known. With such valuable aid—with so many correspondents as have enriched our columns heretofore—and with other arrangements which we have made for imparting value to the publication—we feel justified in asserting that the "Genesee Farmer" will prove itself not unworthy the high praise which has been awarded to it.

Legislative Aid.

The following copy of a Petition which is circulating in Saratoga, Washington and Rensselaer counties, has been forwarded to us for publication in the Farmer:

To the Legislature of the state of New-York, in Senate and Assembly convened:

Your memorialists, inhabitants of the county of ——— having seen in the public newspapers, that applications are about to be renewed to your honorable body for an appropriation of public moneys to aid in the improvement of agriculture;—and being persuaded, from the considerations set forth in the reports made in the Senate and Assembly, at the last session, as well as from past experience, that the character of our state, as well as its general prosperity, will be greatly promoted by the appropriations asked for,—respectfully beg leave to unite in the prayers of said petitions.

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A letter from one of our subscribers in Oneida county says—"I highly approve of the petition to be sent to the Legislature for an appropriation in favor of agriculture. Why cannot we circulate one in this county? I should think it would be readily signed, not only by farmers, but by all who are interested in the wealth and prosperity of the state." Will not the writer, or some of our subscribers in that county, prepare a Petition, and put it in circulation? If it is done at all, no time should be lost.

Difference of Seasons.

We present our readers with an extract of a letter to Professor *Silliman* from *Alexander C. Twining*, dated "Albany, April 9, 1833," which was published in a late number of The American Journal of Science:

"In the year 1827, a large lot of hemlock timber, was cut from the north eastern slope of East Rock, near New Haven, for the purpose of forming a foundation for the wharf which bounds the basin of the Farmington Canal on the East. While inspecting and measuring that timber, at the time of its delivery, I took particular notice of the successive layers, each of which constitute a year's growth of the tree: and which in that kind of wood, are very distinct. These layers were of various breadth, indicating a growth five or six times as full in some years as in others, preceding or following. Thus, *every tree has preserved a record of the seasons* for the whole of its growth, whether thirty years, or two hundred,—and what is worthy of observation, *every tree told the same story.* Thus, if you begun at the outer layer of two trees, one young and the other old, and counted back twenty years,—if the young tree indicated by a full layer, a growing season for that kind of timber, the older tree indicated the same.

"My next observation was, that the growing seasons *clustered together*, and also the meager seasons came in companies. Thus, it was rare to find a meager season immediately preceding or following a season of good growth,—but, if you commenced in a *cluster* of thin and meager layers, and proceeded on, it gradually enlarged and swelled to the maximum, after which a decrease began and went on, until it terminated in a minimum.

"A third observation was, that there appeared nothing like *periodicity* in the return of the full years or the meager, but the *clusters* alternated at irregular intervals; neither could there be observed, in comparing the *clusters*, any law by which the number of years was regulated."

This is a curious record. It has been remarked of our seasons that they are infinitely variable; and considering the many causes which affect our atmosphere, it is not surprising that no two years should be alike; but the reason why they *cluster* into periods of most favorable, or least favorable to vegetation, we must leave to the sagacity of philosophers.

We hope however, as the facts exhibited are indisputable, that it may serve as a more tangible kind of memento to allay the apprehensions of the fearful; and to show them that though a hot summer may be followed in immediate succession by others still hotter,—or a cold season by others still colder,—yet the constitution of Nature remains unchanged; and has boundaries prescribed for its greatest irregularities, which soon, like the waves of the ocean, return to the common level.

A few years ago, it was quite common to hear persons whose business exposed them to the weather, affirming that the climate had changed; and that we should no more have such fine seasons as we had formerly. Some thought it had been deteriorating a long time; others thought it was suddenly brought on by an eclipse of the sun; and a third party ascribed it to islands of ice which had floated down from the arctic regions. To the last opinion we listened with the most patience, although we doubted if a few acres of ice on the distant ocean could sensibly affect our inland territory. That an eclipse of the sun can cool the succeeding seasons, is one of the most unfounded among vulgar notions—it has nothing to support it; and we can hardly speak more reverently of a change of climate for the worse, though the Royal Institution of Great Britain, some years ago, gave it some countenance in their Journal. Still the article which they admitted, may have its use; and serve as a set-off against an opposite notion, to wit: that clearing up a country ameliorates the climate. We hold both to be equally visionary, and entirely inconsistent with any long continued series of observations.

The uneducated classes in all countries *believe too much*, and allow a fond credulity to usurp the place of knowledge. It seems to be a part of their nature to draw general propositions from isolated facts; and to conclude they understand the whole subject before they have fairly entered on the threshold. One observation that favors the supposed influence of the moon, either on plants, animals, or on the weather, is sufficient to confirm that belief. They have seen it come true, and that is enough. How many are ready to foretell all the weather between this and planting time; yet nothing can any of them know about it. In our boyish days, the butchers carefully inspected the *shape* of the hog's *melt* or spleen, and the winter was to be mild or severe accordingly; and though we hope to be not suspected of any reverence for this old custom, we think it quite as good as any other kind of divination.

If such as believe themselves to be weather wise,—we mean for a week or a month or two before hand,—would diligently *observe* and then faithfully *record* their observations, we are strongly of opinion that their self-confidence would diminish; and if any of our readers are amongst the number, we respectfully invite them to try the experiment. If it would afford them any encouragement, we would say that we have tried every rule that we could hear of. Sometimes the weather would agree exactly with the prediction.——Indeed!—Yes, but we have not finished our story: In the end, it never failed to depart wide enough from the rule to prove it a mere fallacy. We frankly admit that *some* observations will support any of the rules that we have learned; but *other* observations show that every rule—all alike—is *mere guess work*,—and consequently of no practical use or utility to either the farmer, or the traveler.

Cattle Husbandry.

The public attention has for some years been directed to the improvement of our neat cattle,—not so much upon the Bakewell plan, of improving our native stock, by carefully breeding from the best individuals, as by introducing from abroad animals of high repute and excellence. These cattle are principally imported from Great Britain and are pretty much confined to Short Horns and Devons. The public opinion, as to the relative merits of these two breeds of cattle, differs in Great Britain as well as with us. A breeder generally commends what he wants to sell. The probability is, however, that each is entitled to a preference in different districts, and for different

purposes. Our knowledge of the characteristics of the two breeds is very defective, and not less so of the peculiar points and qualities which constitute individual excellence. Many confound both under the general denomination of *English* blood, or *English* breed. We have seen animals called Devons, or Short Horns, that had but very feint resemblance, if any, to the true breed; and we have seen others command an extravagant price which had hardly a point or quality to recommend them but the bare *name*. While we remain ignorant of the distinctive characters of these and other English breeds, and of the relative value of each for breeding, grazing, the dairy and the plough, we must grope in the dark, and are liable to gross imposition. With a view of remedying, as far as in us lies, the want of information upon this subject, we propose to devote an occasional column to extracts and abstracts from the "*Farmer's Series*" of the "*Library of Useful Knowledge*," the most modern, and probably the most impartial and correct publication upon this subject.

"The breeds of cattle as they are now found in Great Britain, are almost as various as the soil of the different districts, or the fancies of the breeders. They have, however, been very conveniently classed according to the size of the horns; the *long horns*, originally, so far as our country is concerned, from Lancashire, much improved by Mr. Bakewell, of Leicestershire, and established through the greater part of the midland counties;—the *short horns*, originally from East York, improved in Durham, mostly cultivated in the northern counties and in Lincolnshire, and many of them found in every part of the kingdom where the farmer attends much to his dairy, or a large supply of milk is wanted;—and the *middle horns*, not derived from a mixture of the two preceding, but a distinct and valuable and beautiful breed, inhabiting principally the north of Devon, the east of Sussex, Herefordshire, Gloucestershire; and, of diminished bulk, and with somewhat different character, the cattle of the Scottish and Welsh mountains. The Alderney, with her *crumpled horn*, is found on the southern coast, and, in smaller numbers, in gentlemen's parks and pleasure grounds every where; while the *polled*, or hornless cattle, prevail in Suffolk and Norfolk, and in Galloway, whence they were first derived." "These, however, have been intermingled in every possible way; each county possessing its own mongrel breed."

Before proceeding to describe the several breeds, the work before us proceeds to give, with the reasons which govern, a short sketch of the

PROPER FORM AND SHAPE OF CATTLE.

"Whatever be the breed, there are certain conformations which are indispensable to the thriving and value of the ox or cow. When we have a clear idea of these we shall be able more easily to form an accurate judgment of the breeds of the different counties as they pass before us. If there is one part of the frame, the form of which, more than that of any other, renders the animal valuable, it is the chest. There must be room enough for the heart to beat, and the lungs to play, or sufficient blood for the purposes of nutriment and of strength will not be circulated; nor will it thoroughly undergo that vital change which is essential to the proper discharge of every function. We look, therefore, first of all, to the wide and deep girth about the heart and lungs. We must have both: the proportion in which the one or the other may preponderate, will depend on the service we require from the animal; we can excuse a slight degree of flatness of the sides, for he will be lighter in the forehand and more active; but the grazier must have width as well as depth. And not only about the heart and lungs, but over the whole ribs, must we have length and roundness; the *hooped*, as well as the deep barrel, is essential; there must be room for the capacious paunch, room for the materials from which the blood is to be provided. The beast should also be ribbed home; there should be little space between the ribs and the hips. This seems to be indispensable in the ox, as it regards a good healthy constitution, and a propensity to fatten; but a largeness and dropping of the belly is excusable in the cow, or rather, notwithstanding it diminishes the beauty of the animal, it leaves room for the udder; and if it is also accompanied by swelling milkveins, it generally indicates her value in the dairy.

"The roundness and depth of the barrel, however, is most advantageous in proportion as it is found behind the point of the elbow, more than between the shoulders and legs; or low down between the legs, rather than upwards towards the withers; for it diminishes the heaviness before, and the comparative bulk of the coarse parts of the animal, which is always a very great consideration.

"The loins should be wide: of this there can be no doubt, for they are the prime parts; they should seem to extend far along the back: and although the belly should not hang down, the flanks should be round and deep. Of the hips it is superfluous to say that, without being ragged, they should be large; round rather than wide, and presenting, when handled, plenty of muscle and fat. The thighs should be round and long, close together when viewed from behind, and the farther down they continue to be so the better. The legs short, varying like other parts according to the destination of the animal; but decidedly short, for there is an almost inseparable connection between length of leg and lightness of carcase, and shortness of leg and propensity to fatten. The bones of the legs, and they only being taken as a sample of the bony structure of the frame generally, should be small, but not too small—small enough for the well known accompaniment,—a propensity to fatten—small enough to please the consumer; but not so small as to indicate delicacy of constitution, and liability to disease.

"Last of all the hide—the most important thing of all—thin, but not so thin as to indicate that the animal can endure no hardship; moveable, mellow, but not too loose, and particularly well covered with fine soft hair."

THE DEVON BULL—(*A middle horn*)

"The horn of the *bull* ought to be neither too low nor too high, tapering at the points, not too thick at the root, and of a yellow waxy color. The eye should be clear, bright and prominent, showing much of the white, and it ought to have around it a circle of variable color, but usually a dark orange. The forehead should be flat, indented and small; for by the smallness of the forehead the purity of the blood is estimated. The cheek should be small, and the muzzle fine: the nose should be of a clear yellow. A black muzzle is disliked, and even a mottled one is objected to by some who pretend to be judges of the true Devon. The nostril should be high and open; the hair curled about the head, and giving, at first appearance, an idea of coarseness which soon wears off. The neck should be thick, and that sometimes almost to a fault.

Excepting in the head and neck the form of the bull does not materially differ from that of the *ox*. The head of the ox is small, very singularly so, relative to the bulk of the animal, yet it has a striking breadth of forehead. It is clean and free from flesh about the jaws. The eye is very prominent, and the animal has a pleasing vivacity of countenance, plainly distinguishing it from the heavy aspect of many other breeds. Its neck is long and thin, admirably adapting it for the collar, and even for the more common and ruder yoke.

"The want of the beautifully arched form of the neck, which is seen in the horse, has been considered as a defect in most breeds of cattle. It is accounted one of the characteristics of good cattle that the line of the neck, from the horns to the withers should scarcely deviate from that of the back. In the Devonshire ox, however, there is a peculiar rising of the forehand, reminding us not a little of the blood horse, and essentially connected with the quick and free action by which this breed has ever been distinguished. It has little or no dewlap depending from its throat. The horns are longer than those of the bull, smaller and fine even to the base, and of a lighter color, and sometimes tipped with yellow. The animal is light in the withers; the shoulders a little oblique; the breast deep, and the bosom open and wide, particularly as contrasted with the fineness of the wither. The fore legs are wide apart, looking like pillars that have to support a great weight. The point of the shoulder is rarely or never seen. There is no projection of bone as in the horse, but there is a kind of level line running on to the neck.

"These are characteristic and important points. Angular bony projections are never found on a beast that carries much flesh and fat. The fineness of the withers, the slanting direction of the shoulder and the broad and open breast imply both strength and speed, and aptitude to fatten. A narrow chested animal can never be useful for working or grazing.

"With all the likeness of the Devonshire ox, there is a point about him, disliked in the blood or riding horse, and not always approved in the horse of light draft,—the legs are far under the chest, or rather the breast projects far and wide before the legs. We see the advantage of this in the beast of slow draft, who rarely breaks into a trot, except when he is goaded on in *catching times*, and the division of whose foot secures him from stumbling. The lightness of the other parts of his form, however, counterbalances the appearance of heaviness here.

"The legs are straight, at least in the best breeds. If they are in-kneed, or crooked in the fore legs, it argues a deficiency in blood, and incapacity for work; and not only for work, but for grazing too, for they will be hollow behind the withers, a point for which nothing can compensate, because it takes away so much from the place where good flesh and fat should be thickly laid on, and diminishes the capacity of the chest, and the power of creating arterial and nutricious blood.

"The fore arm is particularly large and powerful. It swells out suddenly above the knee, but is soon lost in the substance of the shoulder. Below the knee the bone is small to a very extraordinary degree, indicating a seeming want of strength; but this impression immediately ceases, for the smallness is only in front—it is only in the bone. It is the leg of the blood horse, promising both strength and speed. It may perhaps be objected that the leg is a little too long. It would be so in an animal that is destined only to graze; but this is a working animal, and some length of leg is necessary to get him pleasantly and actively over the ground.

"There is a very trifling fall behind the withers, but no *hollowness*, and the line of the back is straight from them to the setting on of the tail. If there is any seeming fault in the beast, it is that the sides are a little too flat. It will appear, however, that this does not interfere with feeding, while a deep, although somewhat flat chest, is best adapted for speed.

"Not only is the breast broad, and the chest deep, but the two last ribs are particularly bold and prominent, leaving room for the stomachs and other parts concerned in digestion to be fully developed. The hips, or huckles, are high, and on a level with the back, whether the beast is fat or lean. The hind quarters, or the space from the huckle to the point of the rump, are particularly long, and well filled up—a point likewise of very considerable importance both for grazing and working. It leaves room for flesh in the most valuable part, and, like the extensive and swelling quarters of the blood horse, indicate much power from behind, connected with strength and speed. This is an improvement quite of modern date. The fulness here, and the swelling out of the thigh below, are of much more consequence than the prominence of fat which is so much admired on the rump of many prize cattle.

"The setting on of the tail is high; it is on a level with the back, rarely much elevated, and never depressed. This is another great point in

the blood horse, as connected with the perfection of the hind quarters. The tail itself is long and small, and taper, with a round bunch of hair at the bottom.

"The skin of the Devon, notwithstanding his curly hair, is exceedingly mellow and elastic. Graziers know that there is not a more important point than this. When the skin can be easily raised from the hips, it shows that there is room to set on fat below. The skin is thin rather than thick. Its appearance of thickness arises from the curly hair with which it is covered, and is curly in proportion to the condition and health of the animal. Good judges of these cattle speak of these curls as running like little ripples of wind on a pond of water. Some of these cattle have their hair smooth, but then it should be fine and glossy. Those with curled hair are somewhat more hardy, and fatten more kindly. The favorite color is a blood red. This is supposed to indicate purity of breed; but there are many good cattle approaching almost to a chestnut hue, or even a bay brown. If the eye is clear and good, and the skin mellow, the paler colors will bear hard work, and fatten as well as others; but a beast with a pale skin, and hard under the hand, and the eye dark and dead, will be a sluggish worker, and an unprofitable feeder. Those, however, that are of a yellow color, are said to be subject to *sleat* (diarrhœa.) (*To be continued.*)

The Govenor's Message.

We select a couple of paragraphs from Gov. MARCY's Message to the Legislature of this state, which met at the Capitol on the 7th instant:

AID TO AGRICULTURE.

The subjects connected with the business pursuits of our constituents, next claim our notice. Among these, Agriculture stands first in the order of nature, as well as in the rank of importance. It contributes so essentially to wealth, that the early writers on political economy regarded it as the only source of wealth. It furnishes the means of human subsistence, and supplies most of the materials for manufactures, and the chief articles of commerce. When the labor of the farmer is bountifully rewarded, all other kinds of industry partake of its success; whatever, therefore, is done by the government for the agricultural interest, redounds to the benefit of every other. There is no other occupation which is so diversified in its objects, and requires such various knowledge to conduct it skilfully as that of agriculture. This knowledge results from experiments in all climates, soils and seasons, and is consequently to be derived from different countries. It receives large contributions from the mechanic arts, and from the science of botany, chemistry and natural philosophy. The patronage of the government can scarcely be directed to a more useful object than furnishing the means of collecting information on this subject, and of spreading it among the agricultural population. A board composed of practical farmers and men of scientific acquirements, would possess great facilities for concentrating this various and scattered information; and the best means of disseminating it among the people would be afforded by a public institution, under the direction of such a board, where agriculture should be taught as a science, and practically illustrated as an art. The general interest felt for this branch of industry, will recommend it to your favor; and its intimate connection with the permanent prosperity of the state, will make you desirous of contributing to its advancement.

THE ROAD LAWS.

The great design of internal improvements is to afford to the people generally the means of an easy and expeditious intercourse, and to increase facilities for the transportation of their products and articles of merchandize. While we are intent upon devising and executing magnificent works for attaining these objects, let us not lose sight of those of an humbler character, but of very general interest, essentially contributing to the same end. The heavy burdens annually imposed upon the people for common highways and bridges, are not, it is generally believed, attended with corresponding benefits. The mode of applying the labor assessed and the money raised for this purpose, is conceived to be defective. Without increasing the public expense, much better results might be obtained, by securing greater economy in the expenditures, and a more skilful application of the labor to the objects to be accomplished. The general interest of all classes of our citizens in this subject, will commend it to your favorable notice.

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The following gentlemen compose the Committees of the Legislature on Agriculture:

IN THE SENATE—Messrs. Halsey, Cropsey and Griffin.

IN THE ASSEMBLY—Messrs. Kernon, Moorehouse, Wood, Temple and Dyar.

Large Hogs.

Two hogs, fifteen months old, raised in Pittstown, Rensselaer County, were recently killed which weighed 893 lbs.—average 446½. One, 14 months old, killed in Lansingburgh, weighed 412½ lbs. They were all of the Grass breed. Roswell Benedict of Lagrange, Dutchess Co., has slaughtered this season 16 hogs, which averaged 333 lbs. each. Some of them considerably overrun 400 lbs. Isaac B. Clapp of the same place, killed a pig, 10 months old, which weighed 340 lbs. It was of the Mocho breed. Andrew Lake of Sharon, in the same county, fatted 21 hogs, the average weight of which was 351 lbs. A hog raised at Nantucket, weighed on the 25th of March last 75 pounds—on the 16th December, 470 lbs. being an increase of 23½ ounces per day. Average of corn consumed per day, 4½ pints.

The Hemstead (L. I.) Inquirer states that Mr. Doty of that town "slaughtered on the 23d of Dec. a couple of pigs fourteen months old which weighed as follows:—The largest one 611 pounds—the second 578 making a total of 1189 pounds. These pigs," says the editor, "were fed upon apples and milk, principally through the latter part of summer, and one or two of the first fall months. Since it was designed to fat them they have been fed upon Indian meal. We believe these are the largest pigs of their age ever raised in this state."

Making Butter in Winter.

Although, as a general rule, it may not be the best of economy to attempt to make much butter in winter, yet when a farmer has good cows, good hay and roots, &c. and no market near for his milk, he may as well, perhaps better, make it into butter, than apply it to any other use. But there is a difficulty in making butter in cold weather, which, to those who do not understand the philosophy of butter making, is apt to cause the expense to exceed the profits, if not to cause a total failure in the attempt to obtain butter from cream or milk in the winter season.

Some degree of warmth is as necessary to make butter as it is to cause that fermentation in the juice of apples which changes it into cider, or causes it to *work* as the phrase is; and in process of time, under certain circumstances, to change cider to vinegar. Butter is formed by slightly souring and stirring the cream from which it is churned. But this souring will not take place as long as the cream remains nearly at the freezing point. If you make your cream warm enough, and keep it warm long enough, that is till it begins to change, you may, if your cows are well fed, make butter as well in cold as in warm weather. This may be done by keeping your dairy room warm by a stove or some other means, or by setting metal milk-pans in vessels of wood, and surrounding them with hot water, and renewing the hot water, if occasion may require, till the milk or cream is slightly soured.

Arthur Young, in his notices of Epping dairies, where the best English butter is made, states that "the dairy maids are particularly attive to one circumstance, that there must be a certain proportion of *sour* in the cream, either natural or artificial, or they cannot ensure a good churning of butter. Some keep a little of the old cream for that purpose; others use a little rennet; and some a little lemon juice."

A letter from R. Smith to J. H. Powel, published in Memoirs of the Penn. Agr. Society, contains the following passage:

"Since the month of January, my dairy people have been in the practice of always placing the pans containing the milk in water simmering hot. The oily parts which constitute the cream, are by such heat separated from the other ingredients; and then from their specific lightness, they of course ascend to the top in the form of cream. Cream is thus obtained during the coldest weather in winter in the course of about twelve hours after the milk has been taken from the cows. And the operation of churning such cream never exceeds twenty-five minutes. The milk pans remain in hot water about thirty minutes. The butter has invariably been of a fine flavor, and of a beatiful yellow color; and in the nature of things it never can be otherwise, unless the dairy woman should be utterly ignorant of the art of making sweet butter."

Another mode of making butter in winter has been practiced by E. H. Derby, Esq. of Salem, Mass. and has been by him thus described:

"The milk, when taken from the cow, is immediately strained into earthern pans, and set in the coldest part of the house; as soon as the frost begins to operate, a separation takes place; the cream rises in a thick paste to the top, and leaves the milk without a particle of cream frozen in the pan. The cream is not so hard but that it can be easily scraped off with a spoon, down to the solid ice; it is then set aside until a sufficient quantity is collected for a churning, when it is warmed just so much as to thaw the cream, and sufficiently to put into the churn: I have never known it require more than five minutes to convert cream into butter after the churning has commenced.

"All the butter that was consumed in my family the last winter has been made in this way, and I think I never had finer. I ought to state that I think this method injurious to the cream for certain purposes; such for instance as whip syllabub, as my domestics found after the cream was mixed with other ingredients, that the least agitation brought it to butter."*

Butter made from Scalded Cream. Another mode of making butter recommended in English publications is as follows:

"As soon as the milk is taken from the cow, let it be placed on a steady wood fire, free as possible from smoke, and scalded for thirty minutes—particular care must be taken not to allow it to boil. It must then be placed in a cool situation, and on the following day a thick rich cream will appear on the surface of the milk, (which is excellent for dessert purposes.) This may be taken off, and made into butter in the ordinary way." It is said that a greater quantity of butter, and of a better quality, can be made by this than by the common modes.

Loudon has the following remarks on this subject:

"As winter butter is mostly pale or white, and at the same time of a poorer quality than that made during the summer months, the idea of excellence has been associated with the yellow color; hence various articles have been employed in order to impart this color; those most generally used, and certainly the most wholesome, are the juice of the carrot, and of the flowers of the marigold, carefully expressed and strained through a linen cloth. A small quantity of the juice, (and the requisite proportion is soon ascertained by experience,) is diluted with a little cream, and this mixture is added to the rest of the cream, when put into the churn. So small a quantity of the coloring matter unites with the butter that it never imparts to it any particular taste."—*New-England Farmer.*

* See N. E. Farmer, vol. iii. p. 253.

For the Genesee Farmer.

Draining--Turneps--Chess.

Messrs. Tucker & Co.—Being past the meridian of life when I first set foot in the United States a few years ago, and having taken the oath of allegiance to the government, under which I intend to spend the remainder of my days, I may be allowed to entertain sincere good wishes for its prosperity, and hope to be excused for using the privilege of offering a few general remarks in regard to agriculture, a pursuit in which I was practically engaged in Scotland for thirty years.

It is gratifying to observe from several communications in the Farmer, that public attention is awakened in regard to the importance of two branches of husbandry, which have been practiced with great success in Britain for at least half a century, namely, draining and the culture of turneps. Without drains a farm in Britain is considered to be much in a state of nature, and the introduction of turneps into that island about 60 years ago, was justly considered and is designated by its most eminent authors, as one of the most remarkable eras in the history of British agriculture. Assuredly there can be no good reason for neglecting, in this state at least, those two branches of rural economy, which perhaps more than any other have been the means of improving the circumstances of farmers in the Old Country. In regard to Turneps, however, from my own experience both in this state and in Scotland, it is much to be feared, that very many farmers will be deterred from prosecuting that branch of farming from the liability to failure in their first essays. This was the case in Scotland, particularly at the period of its introduction. Having grown annually in that country about 50 acres for 25 years successively, there appeared no obstacle to being successful in this state. But last year (1832) it did happen that my crop failed. Having attributed that failure to my ignorance of climate and other circumstances, I sowed this year about one acre of ruta baga, and one acre of mangel wurzel, and had as good a crop as I had generally in Scotland for the long period of years above mentioned—say three bushels a rod; which I am at present feeding out to cows, steers, hogs, poultry, and horses. The whole roots are steamed, which, in the severe winters in this state, appears to be an indispensable process.

In regard to draining, I take the liberty of remarking, that it appeared to me a very singular circumstance in this state, (and I have been in no other) that very few open drains or ditches were made, and that the practice of ploughing into lands or ridges was rarely to be seen,—circumstances which satisfactorily account to an old country farmer for the frequent complaint of wheat being *winter killed*. However, as to open drains, my short experience has convinced me of the inexpediency of these, owing to the injurious effects of frost; but I cannot imagine any cause for the omission of ploughing into lands and drawing cross or water furrows in all hollows and at the head lands. Even in Britain, where the winter is comparatively mild, open draining is now very generally superseded by the under or covered mode of draining; and it is a very common thing in many arable districts in that country, (where there are professional drainers) to drain farms of two hundred acres at an expense of $100 per acre, and that by tenants or leaseholders (not owners of the land) who may have hired a farm for only fifteen or twenty years. But you are aware that immense benefit is derived from covered drains, though less frequent, if judiciously laid out at a very great deal less expense than $100 per acre. These facts are the best commentary on the great utility of draining.

One word on the long and frequently discussed subject of Chess, and I shall have done. For 35 years, and that is within my recollection, chess has been called in Scotland Goose Grass—the botanical name I know not; but from examination I am certain that these words apply to the same grass, which was never supposed to be spurious or degenerated wheat. Having sowed annually a hundred acres of that grain on a hired farm, I am rather disposed to speak with some confidence on the subject. It can scarcely be imagined that British farmers are more indifferent to goose grass than to cockle, blight, mildew, or rust. Instead of that being the case, no farmer would buy seed wheat if mixed with chess. Genuine and clean seed of all kinds, is there a subject of general solicitude. I may mention, by the bye, that *chess* is a word not found in the English dictionary.

I am, sir, your most obe't serv't, T. D.

New Hartford, Oneida co., Dec. 30, 1833.

[The reader is referred to an advertisement of Mr. Dudgeon on another page of this paper, for some further information connected with the subjects treated of, in the preceding letter.]

For the Genesee Farmer.

Naked Fallows not Necessary.

I am well aware that it is a hopeless task to undertake to persuade many of my brother farmers, that naked fallows are in no case necessary, and generally prejudicial; but such being my belief, and I may add my experience, I shall endeavor to point out the benefits of fallow crops, and I trust there are some among the readers of the Genesee Farmer, who will be open to conviction.

The principal reasons offered by farmers in favor of naked fallows, are, that weeds are thus more effectually destroyed; that the soil is sweetened by exposure to the sun and air; and that it is more thoroughly pulverized.

I shall undertake to show that they are mistaken in every point, and in so doing I shall state my own experience.

In the autumn and winter of 1829, I had 13½ acres ploughed to the depth of seven to eight inches. The work, owing to frost, was not completed till Christmas. In ploughing this depth, two to three inches of solid clay was turned up, which had never before been disturbed. My neighbors predicted that it would not produce a good crop of corn. In the spring of 1830 I found that the harrow completely fitted the ground for sowing and planting. I sowed 3¼ acres with oats, 4 with peas, planted 5 acres with corn and 1 with potatoes. My crops were the best in the neighborhood, especially the peas and corn. In the fall I prepared the whole for wheat, the oat ground by two ploughings, (harrowing in place of the first would have been better,) the residue by one; found the pea and corn ground finely pulverized and clean, and sowed it, some as late as the 10th October.

In the course of the summer I had prepared a naked fallow of 16 acres adjoining the above, which was in the best possible order, being ploughed to the depth of eight inches, and sowed it before the other. In the autumn and spring the wheat on the 16 acres had the most promising appearance; but as the season advanced, that on the pea ground had the superiority. At harvest the result was as follows: The wheat on the pea ground was too stout, as much of it was down and had to be reaped. That on the corn ground filled the best of any, and was very handsome; I think it yielded more than 25 bushels per acre. The naked fallow was the next best, and the oat and potato ground produced the poorest crop, but this was owing principally to a considerable part of the ground being too wet.

If farmers on stiff soil would draw all their manure to their corn and potatoe grounds in the fall, and *then plough deep* for their spring crops, and sow wheat after crops of peas, barley and corn, I most fully believe that their fields would be as clean, and their crops as good, as if sowed on naked fallows; if so, their spring crops would be clear gain.

Ontario.

For the Genesee Farmer.

Ridging of the Ground for Vines.

Agreeable to the recommendation of our worthy friend and experienced horticulturist, D. T. I tried the experiment the past season, of ridging the ground in my garden for raising melons. The result was a complete failure. Whether owing to the season, or some other cause I am unable to say. It was probably in part owing to the season, and partly to the nature of the soil. The soil and subsoil are of a gravely loam, being a deposit from the neighboring hill. Loose in its texture, it lecches very much, and in dry seasons is subject to be parched with drouth. Though the past season in this quarter cannot be called a dry one; yet, I think my vines suffered from want of sufficient moisture, as well as of sufficient heat. The ground was thrown up into ridges about a foot and a half high and three feet wide at the base, rounded on the top; and where each hill was planted, a quantity of sand and rotten manure was previously well mixed. After all my pains, I had scarcely a melon fit to eat. The musk melons, literally came to nothing. On a clay sub-soil which retains the moisture, especially in a wet season, ridging undoubtedly is beneficial, but I am satisfied it will not do for my ground.

W. W. B.

For the Genesee Farmer.

Diseased Horses.

Messrs. Tucker & Co.—I have read the remarks of *Onondaga*, in the Farmer of Dec. 21, respecting the Black Tongue and the doctoring of horses generally. I am pleased with some of his observations, but I think he is mistaken in some things. In speaking of the pulse of the horse, he says that 50 to a minute and upwards, indicates a high fever. So say I, if enough upwards of 50. The pulse of a horse in good health, with low feeding, beats from 36 to 40 per minute, if high fed, his pulse may go 45 and some more, without any more fever than is occasioned by the high feed. In simple and symptomatic fevers the pulse will run from 60 to 72, and in cases of inflammation of the lungs or pleura, in the early stage of the disease, the pulse is often from 62 to 80, when nothing but excessive bleeding with continued clysters will be of any service.

The best place to ascertain the pulsation of a horse is under the jaw-bone, where the artery passes on to the side of the face. In this situation the artery is covered by the skin only, and as it rests against the bone its strength or weakness may be ascertained with the nicest exactness and accuracy. When a horse is in health the artery feels neither hard nor soft, but perfectly elastic; but when in a fever the artery becomes often so hard as to resist the pressure of the finger, and will beat, as said before, from 60 to 80 per minute.

As there is nothing like comparing notes to come to the truth, I wish you to give the above a place in your Farmer. I remain yours, &c.

A SCOTCHMAN.

For the Genesee Farmer.

Husk Matresses.

In one of your late numbers, [vol. 3, p. 385,] I observed an article on the subject of Husk Matresses. Permit me to suggest an important improvement. The preparation of the husk should be as you propose, but instead of using it alone, the following addition is far preferable. Prepare a layer of husk of the size you want your matress and then lay on a layer of *cotton batting* of the ordinary thickness; then another thin layer of husks; then another of cotton, and so on, till you get your matress of the desired thickness. Stitch the whole together and cover with your ticking in the usual manner.

Matresses made in this way are full as good as the best curled hair beds, and I defy the closest observer to tell the difference by sleeping upon them. I have used one during the last summer, made in this way, and can attest to their great excellence, as well as economy. QUERCUS.

For the Genesee Farmer.

Canada Thistles.

I have recently noticed in the Genesee Farmer several articles on the destruction of the Canada Thistle; but none of them seem to reach the *root* of the evil. I am however pleased to see the public attention drawn to the subject.

The extermination of this pest of our plough fields, is an object of great importance to all farmers, who are unfortunate enough to have them on their lands; and it is therefore, in a measure, incumbent on them to communicate to each other whatever methods they have taken for that purpose, and particularly such as have had the desired effect.

I have no expectation that this thistle is to be totally and entirely eradicated, and banished from the country, as it is a perennial plant, and is to be found on road sides, in woods, and in all unoccupied lands, (at least in this vicinity.) All that can be done with such, if near at hand, is to cut them off and prevent their seeding. But being possessed of another manner of propagating themselves, more sure and certain, by their side or horizontal roots, which the cutting of the tops of the plant does not effect or check; they therefore must be permitted to remain, in such places, by a sort of compromise, that they are to be prevented from scattering their seeds on to our plough fields, from which I am confident they may be expelled, and after which, easily kept out; any further than this I shall not attempt doing or advise others to do.

Some enactments of the Legislature, as recommended in the Farmer, would undoubtedly be of use. Such as obliging the owners of land (at least such as is under improvement) to cut them at the proper time—imposing a penalty for neglect,—and making it the duty of overseers of highways to have this done on the margin of roads. It would likewise have the effect of calling the public attention to the thing, and spread the alarm.

In articles of this sort, intended to guide the operations of others, unless one goes somewhat into detail, the object is in a measure lost; for those (if any there should be) who may be induced to adopt the method recommended, will have a wish to know all the particulars of the process before they commence. I shall therefore be compelled to make this of greater length than I supposed at first setting out would be necessary. What is here stated, however, is all from my own knowledge; nothing is given on hearsay.

When I purchased the farm which I now occupy, about thirty years ago, excepting some meadow lands, near a river, and some other small pieces, there were little or no improvements on it; being thrown out to commons, and mostly covered with small sapling wood and bushes—or as my Dutch neighbors expressed it, "*it had run out to bush.*" In open spots in this *bush*, the Canada thistle was sprinkled pretty liberally; and after clearing and ploughing they began to spread to an alarming extent, and threatened to overrun the whole premises. This first led me (but not in time by many years) to adopt some method more effectual than cutting off the tops to stop their progress.

It is well known to all farmers as well as botanists, that the roots of no tree or plant, whether annual, biennial, or perennial, can long survive, if prevented from vegetating, and coming up to the light of day. My theory was based on this principle. I commenced operations about eight years ago on some small patches in a field planted with corn, as soon as any thistles appeared after planting, cutting them off twice a week at first; and was very particular never to have it neglected. It would take but a few moments, to go over a patch two or three rods square, with a hoe; at the same time being very careful to leave none: and to be sure of this I generally went over the ground, row by row, a second time. The deeper they are cut off with the corner of the hoe, the longer time of course it will require the new shoots to reach the surface again. I followed them up in this way, and about the middle of August they began to come up thin and scattering, and appeared of a sickly, yellowish hue. This was encouraging, and we continued the operation, (though I found it was not necessary to look to them quite as often as at first,) to about the first of October, or until no more appeared, and none have since shown themselves on these spots.

By digging down to the main roots in August or September, they were found in a state of decay, being of a blackish color. The result of this first attempt, is already given; but I will give something more of the details of the operation. That there should be no difficulty in finding the several patches when the corn had attained its full hight, I placed high poles at each spot so that they could be seen over the tops of the corn, and kept a hoe on the ground to be ready at hand whenever I happened, in walking over my premises to take them in my way, and cut them off if any were to be seen. In this way, but little time was spent; in fact none worth noticing. And as early as the first of October, as before observed, they were completely conquered. I ascribe the early season at which these patches were subdued, to their being allowed no breathing spell, and no omission being made through the season of operation, of cutting them off as fast as they appeared.

I have sometimes in lieu of, or rather for the want of a hoe, used a piece of hard wood, flattened to two or three inches wide at one end, and sharpened; or what is still better, a piece of iron or steel, like a chisel, fastened to the end of a stick or walking cane. It is proper to have some kind of tool in hand, or at the spot, otherwise, some might escape, when one was accidentally passing near them.

Although the actual labor and time spent to destroy thistles in this way, is but trifling, at least small patches; still it requires considerable patience and much diligence, that the thing may never on any account be neglected during the season of their growth; and I would caution all such as may have an inclination to try the experiment, that unless they are fully determined to persevere, and have full confidence that they can do it for at least four months, not to attempt it; because by any neglect during the season, the previous time spent, is in part lost; as by allowing the plants a breathing spell in the sun and air, new life and vigor is communicated to the roots, which is the thing intended to be destroyed.

As an evidence of this, in the season of 1828, I undertook to kill the thistles on a field of about fifteen acres planted with corn; and on which there were nearly twenty patches. Having placed the poles as before, I began cutting them as soon as any appeared after planting. They were followed up without any neglect, and as fast as they appeared, until about the 20th of August, when they appeared nearly subdued or in a fair way for it, beginning to come up scattering and yellow. At this time I was called away on a journey, and was absent nearly four weeks, leaving strict injunctions on my men not to neglect the thistles in my absence. How far they attended to it, I cannot say, for immediately on my return, I was taken sick, and was confined until after corn harvest. The thistles of course were forgotten. To make the matter still worse, the ground instead of being planted again as it should have been, was sown with barley and peas, and in September following with wheat, and the next spring stocked with clover for pasture. The same patches of thistles having revived began to show themselves, on the barley and peas, but being few in number and scattering, no attention was paid them. They have since continued to increase and spread by their horizontal roots, so that there is nearly or quite as many on the field as at first; although they have been regularly mowed off every year, and sometimes a second time, and have not seeded. This failure was evidently owing to the business not being attended to as it should have been the latter part of the season; but might have been remedied had the ground been planted with corn the second year, and which I shall do soon, and hope to avoid

a like neglect by which our labor in experimenting this season was lost

The season of 1830, I planted another field with corn of about the same size of the last mentioned. There were on this field a number of patches of the thistle, some of them large, say over half an acre, some small. It was calculated that altogether they would have covered two and a half acres of ground. Having as usual marked the spots with poles stuck in the ground, we commenced cutting them at the proper time. The labor required on this field was more than on any I had yet taken in hand—the patches being large, and the thistles thick and strong. At first, and while vegetation was quick and rapid, the labor to go over them was equal to two men a day; but in a short time one man would do it in the same time, and towards the close of summer in three or four hours. Some of these patches were very obstinate, so that we were obliged to follow them up into October; others gave up sooner. On the whole they were totally destroyed. None escaped, and none are now to be found in any part of the field that has been ploughed. Although we succeeded in destroying the thistle on this field the first year, I should advise, where killing them is the great object, to plant with corn two years in succession, (although this in other cases might be bad management,) that should any thistles escape the first, they may be finished the second year.

I cannot state the expense of this experiment, as I kept no memorandum; but should think it would amount to not more than twenty dollars, if men had been hired for that express work; but as it was done mostly by boys, with myself, or some careful hand to overlook, I paid out nothing extra for labor that season on account of this job, and there was no neglect of other farming operations. But twenty, or even forty dollars, would be nothing compared with the object attained, by clearing a good plough field of this nuisance. Had they been left to their natural course, they would in a few years by the running of their horizontal roots, and scattering with the plough and harrow, have spread over the whole field and ruined it for tillage.

(Remainder in our next.)

For the Genesee Farmer.

Salt Peaches.

Messrs. L. Tucker & Co.—In the Genesee Farmer of the 28th of December, you mention *salt peaches.* It appears to me that this phenomenon, though uncommon, is not inexplicable. All trees and plants take from the earth by their roots water, and often ingredients dissolved in the water; and living plants have the power of decomposing this water—the hydrogen and oxygen of which the water is composed is evaporated or thrown off through the bark and leaves—a part is assimilated and converted by the digestive organs of the plant, into its peculiar qualities. Now if we mix salt or any other poisonous substance with the water, the poison or salt will be taken in with the water, and the tree or plant will become sickly, and ultimately will die. It would seem, then, that the peach tree, mentioned as watered with brine, had lost its power of decomposing, digesting and assimilating water, so that the salt taken in by the root could not be thrown off, but was carried forward with the sap, and ultimately reached the fruit, carrying with it the salt and ultimate death of the tree. Such are my views on this subject, and I remain, Yours, &c.

Potter, Jan. 2, 1834. R. M. W.

For the Genesee Farmer.

Plants derive most of their Carbon from the air.

The manner in which trees acquire the carbon which they accumulate in such remarkable quantities, may be made a question; but I have been led to conclude that they derive it chiefly from the atmosphere.

I am aware that Sir *Humphry Davy* has said that "water, and the decomposing animal and vegetable matter existing in the soil, *constitute the true nourishment* of plants;" and so far as the crops of the farmer, in common cases, are concerned, it may very safely for practical purposes, be so considered. On two parts of the same field,—one sterile and one highly manured, exposed to the same sunshine and moistened by the same rains,—the crops may differ ten fold, seeming to indicate how little they have been indebted to the atmosphere for nourishment. Yet this subject may be placed in another point of view. Some soils of singular fertility, are almost destitute of vegetable or animal matter,—such as the black sands (so called) of some of the western prairies, where the chief fertilizing principle is evidently a mineral. On these, one crop of corn would contain many times as much carbon as had previously existed in the soil. Neither ought it to excite our wonder that plants of the same kind should derive little nourishment from the atmosphere in one situation, and a great deal in another; for a *healthy* animal may become fat, and a *diseased* one, emaciated, under the same treatment, and with *an offer* of the same food.

It is a well established fact that the atmosphere contains variable proportions of carbonic acid, sometimes amounting nearly to one per cent. It has also been determined by experiment that plants have the power to decompose that acid which consists of carbon and oxygen. "A *healthy* plant absorbs carbonic acid," says *Turner*, "during the day, *appropriates the carbonaceous part of that gas to its own wants*, and evolves the oxygen with which it was combined. During the night indeed an opposite effect is produced. Oxygen gas then disappears, and carbonic acid is eliminated; but it follows from the experiments of *Priestley* and *Davy*, that *plants during 24 hours yield more oxygen than they consume.*" Again: "It was found by Dr. *Percival* and Mr. *Henry* that the presence of a little carbonic acid is favorable to their growth. *Saussure*, who examined this subject minutely, ascertained that plants grow better in an atmosphere which contains about one-twelfth of carbonic acid than in common air, provided they are exposed to sunshine." Further: "*Saussure* is of opinion that plants derive a large quantity of their carbon from the carbonic acid of the atmosphere."

There is another view of this subject which confirms the opinion just expressed. The comparatively barren soils of some mountains, consisting chiefly of the disintegrated rock, in which scarcely more than a trace of vegetable matter could be found,—sustain trees of great magnitude. Some of these would yield several hundred bushels of charcoal; and present the conclusion that year after year they had abstracted carbon from the atmosphere until such astonishing piles were accumulated.

But an argument equally strong, may be drawn from our own forests. If we burn a stick of solid wood in a close vessel, so as to exclude a free access of air, its form will be nearly preserved, and it becomes a stick of charcoal, rendered by this process, almost incorruptible. If the whole tree, or rather all the trees of the wood, were treated in this manner, the whole land might be covered several inches thick with charcoal. This will show the abundance that exists in our woods. If we expose a similar stick however, to the damp earth, it gradually imbibes moisture, fermentation commences, its carbon combines, passes off in the form of gas, and in the course of years not a trace remains of its former existence. In this way, our heavy forests, age after age, have disappeared; and the vegetable mold which has accumulated among them, only waits to be more exposed to the influences of the seasons, to take wing in its turn. Such an expenditure of carbon cannot be supplied from the soil.

To show still further that this conclusion may be safely adopted, I refer to the analysses made by Sir *H. Davy* of different soils in Great Britain, proving the very small proportions of carbon which they could yield to vegetables. Both lime and magnesia indeed contain it; but "there is no reason to suppose," says that eminent chemist, "that the earths are convertible [by plants] into the elements of organized compounds,—into carbon," &c. In soils therefore, we must confine our search for it, to vegetable or animal matter. The proportion of carbon varies so much in different plants, that it is difficult to determine the quantity with much precision; for in some kinds of solid wood, it constitutes a fifth, in others a seventh, and it is doubtful if more than one tenth should be estimated in such fibres as commonly occur in soils. Adopting the last proportion however, as a basis for calculation, it will appear that "a good siliceous sandy soil from a hop garden in Kent," contained only *three* parts of carbon out of *four hundred.* Other lands yielded a far less proportion. A soil from Sussex "remarkable for producing flourishing oaks," only contained *one* part in *two hundred and fifty;* "an excellent wheat soil" from Middlesex only *one* part in *three hundred and twelve*, and "a good turnep soil from Holkham in Norfolk," little more than a trace of carbon, or *one* part out of *three thousand.*

These proportions of carbon in the soil appear too small to supply the demands of vegetation; but the same soil both *during* and *after* the growth of a crop, *when unmanured*, cannot be presumed to contain less carbon than it did before; and therefore the plants must be principally indebted to the air for this important aliment.

An Observer.

For the Genesee Farmer.

Scabby Potatoes.

I have taken your paper from its commencement, and I consider it a very valuable one. I know no good reason why it is not in the hands of every practical farmer in Western New-York. If they were aware of the value of such a paper, surely they would not remain long without it.

Among the numerous subjects which have been considered, there is one I have not observed. I

mean the scab on potatoes. Some seasons they are very scabby, others but little. This season I have seen but a few that were injured by it. It seems to be confined to certain spots or pieces of ground in a field, and not general. It has been ascribed by some to chip manure, but I am persuaded that this is a mistake. I should be glad to have the opinion of some of your experienced correspondents as to the cause of this disease, and also a remedy if there is any. ARATOR.

Gorham, Dec. 6, 1833.

For the Genesee Farmer.

Fine Imported Sheep.

MR. L. TUCKER.—I want to notify the farmers of this region through the medium of the FARMER, of a stock of Sheep recently brought from England by Mr. Dan Stockdale He lives near the margin of the canal, on the line between the towns of Murray and Barre, Orleans county. His buck is a very fine one of the Durham breed. I think I hazard nothing in saying that there is not his equal in Western New-York. As to symmetry, nothing of the species can excel it. His imported ewes are proportionately fine. So far as I am acquainted, this section of country does not produce any thing equal to them. The common yearly produce of wool, is, of the buck, 10 lbs. and of the ewes 8 lbs. They have an extraordinary tendency to fatten. One of the ewes, which last summer reared two lambs, is now [January] so fat that you cannot feel the ribs by rubbing the hand along her sides; and it requires no small exertion to raise her from the ground. The buck, after having from sixty to seventy ewes, is now so fat that instead of the sharp edge of the back bone rising above the flesh, as is usual with our sheep, the flesh is so raised above and folded over on each side of the back bone, that it forms a channel sufficient to receive the breadth of one's finger. This is no fiction. I was there yesterday [Dec. 31,] for some ewes I had left with the buck a month before, when I examined them thoroughly for the second time, and found my first impressions correct.

To cross this breed with our Merino and Saxony, will make a great improvement in our stock of sheep. I saw some lambs of this kind which are very fine. I was told by one of the neighbors of Mr. Stockdale, that lambs of this description at a year old would yield about six pounds of wool per head, of a very fine quality for common use. This was also confirmed by Mr. S. Mr. Stockdale tells me that he took great pains in selecting his buck, which was purchased from one of the best herdsmen in England. (I neglected to take his name, and do not now recollect it.)

By a sealed or *stamped* receipt, which Mr. S. showed me, he paid for the buck, in England, ten guineas, conditioned to pay ten more should he be still kept in that country. Mr. S. tells me that he wishes to purchase a few fine full blood Merino and Saxony ewes to cross, and he being a stranger in this country, wishes to be informed where they may be the most conveniently obtained. Messrs. Baldwin and Brewster of Riga, have formerly been noted as good sheep breeders of these kinds. Will some one be so good as to give the desired information through the FARMER? The terms of Mr. S. are one dollar per ewe, which I think quite moderate. He wishes those who bring ewes to bring the best, so that the stock may not be degenerated. C. ROBINSON.

Clarendon, Jan. 1, 1834.

P. S. Mr. S. remarks on another species of stock, "that he has seen a number of cattle called Durham, which were far from it—that people here are liable to imposition on this point—that he had selected two bulls and some heifers of this breed for transportation, but the captain refused to take them on board—has tried a number of times since to have them brought, but has been as yet unable to succeed." The Short Horned Durhams, he says, are preferred in England to all others, being the best to fatten and for the dairy. Oxen not being in use for teams, the Devons are not held in very high repute.

☞ The communication of *Glaucus* is necessarily excluded, for want of the *accented* letters used in it.

☞ *Agricola* is in type, and will appear next week.

PRICES CURRENT.

ARTICLES.	PER	*Jan.* 17. ROCHESTER.	*Jan.* 11. NEW-YORK.
Ashes—Pot....	100lbs.	$3,75 *a* 0,00	$4,27 *a* 4,30
—— Pearl..	.....	4,00 *a* 4,25	4,70 *a* 4,75
Beeswax, yellow	lb.	0,16 *a* 0,18	21 *a* 22
Candles, mould	.....	0,10½ *a* 0,11	13 *a* 14
—— dipped.	.....	0,10 *a* 0,10½	10½ *a* 11½
Cloverseed....	.....	.....	8..*a*..9
Flax, American.	.....	.....	8..*a*..9
Flax seed, clean	tierce	9,00 *a* 10,00	15,00
Flour, Western.	barrel	4,50 *a* 0,00	5,44 *a* 5,75
Grain, Wheat..	bushel	0,87 *a* 0,90	1,12
—— Rye....	.....	0,62.....	72..*a*..75
—— Oats...	.....	0,27.....	38..*a*..42
—— Corn...	.....	0,56.....	70..*a*..72
—— Barley..	.....	0,50..*a*..56	70..*a*..71
Hemp, Americ'n	ton	.....	100 *a* 125
Hops, 1st sort..	lb.	.....	18..*a*..19
Plaster Paris...	ton	6,00 *a* 0,00	3,00*a*....
Beef, Mess....	barrel	0,00 *a* 10,00	8,50 *a* 9,00
—— Prime....	.....	0,00 *a* 8,00	5,50 *a* 6,00
Pork, Mess....	.....	15,00	14,25*a*15,00
—— Prime....	.....	11,00	10,50*a*11,25
—— in the hog.	100lbs.	4,50 *a* 5,50	.....
Hog's Lard....	.....	8,00 *a* 9,00	9,00*a*10,00
Tallow.....	.....	8,00 *a* 9,00	8,75.....
Hay.....	ton	8,00 *a* 9,00	11,20 *a*....
Apples.....	bushel	25..*a*..50	.....
Potatoes.....	.....	25..*a*..00	.....
Cheese.....	lb.	5..*a*...8	7½ *a*....
Butter.....	.....	14..*a*.16	15..*a*..17

For Sale,

A LEVELING INSTRUMENT or spirit level, with a tripod—price 75 dollars. Apply to DAVID THOMAS,

Jan. 10, 1834. near Aurora in Cayuga county.

Stop Thief!

STOLEN from Benjamin Hodge, jr. on the evening of January 9, a Grey Mare, 8 or 9 years old, about 14 or 15 hands high—shod all round, switch tail, and natural trotter. Had on when taken, a saddle considerably worn with leather girths and a blind bridle or head-stall. It is supposed that the thief was seen with the mare on Friday Jan. 9, in Genesee Co. near Batavia. The Buffalo Society for detecting Theives, &c. offer a reward of $15 for the apprehension and conviction of the Thief and recovery of the Mare—or $10 for either the Thief or the property stolen.

Benjamin Hodge, jr. offers an additional reward of $15, for securing the Thief and return of the property, or a liberal reward for either, and all reasonable charges paid.

Any information communicated to the subscribers by mail or otherwise will be thankfully received.

WM. HODGE, H. KIP, A. BRYANT, } Society's Committee.

Jan. 1834.

Linnæan Botanic Garden and

NURSERIES, FLUSHING, NEAR NEW-YORK.

WILLIAM PRINCE AND SONS, having devoted a portion of their grounds to testing the qualities of the finest Esculent vegetables of foreign countries, as well as those of our own, now offer to Venders and others a most extensive assortment of the *choicest Seeds*, possessing the advantage of being raised under their own inspection, or of being imported from their confidential friends, and tested to their satisfaction. The principal object is to supply venders with wholesale quantities, but they cannot refuse to furnish their correspondents with smaller parcels for family gardens, &c. The prices are very moderate (particularly for quantities) it being the desire to render this branch of business profitable by its great extent, and not by enhanced prices. By reference to the Catalogue, it will be seen that it comprises *a great number of new and choice varieties never before offered to the public:* it being the intention to enrich this department with the same zeal that has been devoted to others. They have also imported the finest Agricultural Seeds known in Europe.—The following form a part of their present stock of Seeds:

2500 lbs. Cabbages, comprising all the varieties.
2000 lbs. Turneps, ditto, including 800 lbs. Ruta Baga and other field Turneps.
1000 lbs. Radishes, ditto.
800 lbs. Onions, ditto.
800 lbs. Beets, ditto, including 300 lbs. Mangold Wurzel.
600 lbs. Carrot, ditto, including 200 lbs. Large Field Carrot.
300 lbs. Cucumber, ditto.
150 lbs. Lettuces, ditto.
100 lbs. Large German Asparagus.
50 Bushels Pacey's perennial Ryegrass, *very celebrated.*
20 do. Lawn Grass.
25 do. English Potatoe Oats, weighing 44 lbs. per Bushel.
20 do. Early Angus Oats, } *the finest known in*
20 do. Hopeton do. } *Europe.*
100 do. Orchard Grass.
1000 lbs. White Dutch Clover seed.
1000 lbs. Provence Luzerne, *the finest kind known.*
150 lbs. Trifolium incarnatum.
100 Bushels Canary seed, *superior quality.*
30 do. White Mustard.
6 do. Taylor's forty fold Potatoes, which is now taking precedence in England.

And proportionate quantities of all other kinds of seeds. Priced Catalogues will be forwarded to every applicant; and to venders, and those who desire to enter into the business, every information will be given relative to retailing, &c. The articles will be packed in a superior manner, and forwarded with the utmost dispatch.

Packages for Ohio, and the other Western States, can be sent during winter by way of Baltimore or Philadelphia by the Transportation Line.

N. B.—Catalogues of Fruit and Ornamental Trees, &c. will be sent to all who request them.

January 10, 1834.

Draining of Land, &c.

DRAINING being admitted to be one of the best, if not the very best means of improving land, and which repays the expense in general cases within two or three years; the subscriber who has studied the theory and has had much practice in that art for 30 years in Scotland, offers his services to the Public.

CULTURE OF TURNEPS.—Also, having been engaged for many years in raising Turneps to a considerable extent in Scotland and a few years in the County of Oneida in this State, he will give such directions for cultivating this valuable root as will tend to ensure success. If any application on this subject is made by letter, one dollar must be enclosed, and at the same time it will be necessary to give a description of the soil, whether clay, sand, or loam, and of the two crops which have preceded on the land to be sowed.

TURNEP DRILL MACHINE.—Machines for sowing Turnep and Mangel Wurzel seeds similar to those which the subscriber used for twenty years in Scotland, and which he has used successfully here, are manufactured and sold by him for Cash.

Letters post paid, addressed New Hartford, Oneida County, N. Y., will meet with due attention. Most respectable references can be given.

Jan. 10, 1834. THOS. DUDGEON.

COBB'S MANUAL OF CULTURE OF SILK, &c. for sale by HOYT, PORTER & Co.

Delightful Tendency of Scientific Pursuits.

[*Continued from page* 16.]

In order to illustrate this topic a little further, I shall select a few facts and deductions in relation to science which demonstrate the interesting nature and delightful tendency of scientific pursuits.

Every species of rational information has a tendency to produce pleasing emotions. There is a certain gratification in becoming acquainted with objects and operations of which we were formerly ignorant, and that, too, altogether independent of the practical tendency of such knowledge, of the advantages we may expect to reap from it, or the sensitive enjoyments with which it may be accompanied. A taste for knowledge, a capacity to acquire it, and a pleasure accompanying its acquisition, form a part of the constitution of every mind. The Creator has implanted in the human mind a principle of curiosity, and annexed a pleasure to its gratification to excite us to investigations of the wonders of creation he has presented before us, to lead us to just conceptions of his infinite perfections, and of the relation in which we stand to him as the subjects of his government. We all know with what a lively interest most persons peruse novels and romances, where hair-breadth escapes, mysterious incidents, and tales of wonder are depicted with all the force and beauty of language. But the scenes detailed in such writings produce only a momentary enjoyment. Being retraced as only the fictions of a lively imagination, they pass away like a dream or a vision of night, leaving the understanding bewildered and destitute of any solid improvement. In order to improve the intellectual faculties while we gratify the principle of curiosity, it is only requisite that we direct the attention to *facts* instead of fictions; and when the *real scenes* of the universe are presented in an interesting aspect, they are calculated to produce emotions of wonder and delight even superior to those excited by the most highly-wrought tales of fiction and romance. The following facts and considerations will perhaps tend to corroborate this position.

In the first place, *the number of effects produced by a single principle in nature* is calculated to excite emotions of admiration and delight. From the simple principle of *gravitation*, for instance, proceed all the beauties and sublimities which arise from the meandering rills, the majestic rivers, and the roaring cataracts—it causes the mountains to rest on a solid basis, and confines the ocean to its appointed channels—retains the inhabitants of the earth to its surface, and prevents them from flying off in wild confusion through the voids of space—it produces the descen of the rains and dews, and the alternate flux and reflux of the tides—regulates the various movements of all animals—forms mechanical powers—gives impulsion to numerous machines—rolls the moon round the earth, and prevents her from flying off to the distant regions of space—extends its influence from the moon to the earth, from the earth to the moon, and from the sun to the remotest planets, preserving surrounding worlds in their proper courses, and connecting the solar system with other worlds and systems in the remote spaces of the universe. When a stick of sealing wax is rubbed with a piece of flannel, it attracts feathers or small bits of paper; when a long tube of glass, or a cat's back, is rubbed in the dark, it emits flashes of fire, accompanied with a snapping noise. Now, is it not delightful to a rational mind to know, that the same principle which causes wax or amber to attract light substances, and glass tubes or cylinders to emit sparks of fire, produces the lightnings of heaven and all the sublime phenomena which accompany a violent thunder-storm, and, in combination with other agents, produces also the fiery meteor which sweeps through the sky with its luminous train, and the beautiful corruscations of the aurora borealis? There are more than fifty thousand different species of plants in the vegetable kingdom, all differing from one another in their size, structure, flowers, leaves, fruits, mode of propagation, internal vessels, medicinal virtues, and the odors they exhale. Who would imagine that this immense assemblage of vegetable productions which adorns the surface of the earth in every clime, with such a diversity of forms, fruits, and colors, are the result of the combination of four or five simple substances variously modified by the hand of the Creator? Yet it is an undoubted fact, ascertained from chimical analysis, that all vegetable substances, from the invisible mushroom which adheres to a spot of mouldiness, to the cedar of Lebanon and the banian-tree, which would cover with its shade an army of ten thousand men,—are solely composed of the following natural principles—caloric, light, water, air, and carbon.

Again, is it not wonderful that the invisible atmosphere should compress our bodies every moment with a weight of more than 30,000 pounds without our feeling it, and the whole earth with a weight of 12,043,468,800,000,000,000 *pounds*, or five thousand billions of *tons*; that this pressure is essentially necessary to our existence, and that a small quantity of air within us, which would not weigh above a single ounce, by its strong elastic force counteracts the effects of this tremendous pressure upon our bodies, and prevents our being crushed to pieces—that the same cause prevents our habitations from falling upon us and crushing us to death, without which our glass windows would be shattered to atoms, and our most stately edifices tumbled into ruins!—that this atmosphere is at the same time performing an immense variety of operations in nature and art—insinuating itself into the pores and sap-vessels of plants and flowers—producing respiration in all living beings, and supporting all the processes of life and vegetation throughout the animal and vegetable creation—that its pressure produces the process of what is called *suction* and *cupping*—causes snails and periwinkles to adhere to the rocks on which they are found—gives effect to the adhesion of bodies by means of mortar and cement—raises water in our forcing-pumps and fire-engines—supports the quicksilver in our barometers—prevents the water of our seas and rivers from boiling and evaporating into steam—and promotes the action of our steam-engines while raising water from deep pits, and while propelling vessels along seas and rivers!

In the next place, science contributes to the gratification of the human mind *by enabling us to trace, in many objects and operations, surprising resemblances, where we should least of all have expected them.* Who could at first sight, imagine, that the process of breathing is a species of combustion, or burning—that the diamond is nothing else than *carbon* in a chrystalized state, and differs only in a very slight degree from a piece of charcoal—that water is a compound of two invisible airs or gases, and that one of these ingredients is the principle of flame!—that the air which produces suffocation and death in coal-mines and subterranean grottos, is the same substance wnich gives briskness to ale, beer, and soda water, and the acid flavor to many mineral springs—that the air we breathe is composed of the same ingredients, and nearly in the same proportions, as nitric acid or aquafortis, which can dissolve almost all the metals, and a single draught of which would instantly destroy the human frame—that the color of *white* is a mixture or compound of all the other colors, *red, orange, yellow, green, blue, indigo,* and *violet*, and consequently, that the white light of the sun produces all that diversity of coloring which adorns the face of nature—that the same principle which causes our fires to burn, forms acids, produces the rust of metals, and promotes the growth of plants by night—that plants breathe and perspire as well as animals—that carbonic acid gas, or fixed air, is the product both of vegetation, of burning, of fermentation, and of breathing—that it remains indestructible by age, and, in all its diversified combinations, still preserves its *identity*—that the air which burns in our street-lamps and illuminates our shops and manufactories, is the same which causes a balloon to rise above the clouds, and likewise extinguishes flame when it is immersed in a body of this gas—that the leaves of vegetables which rot upon the ground, and appear to be lost forever, are converted by the oxygen of the atmosphere into carbonic acid gas, and this *very same carbon* is, in process of time, absorbed by a new race of vegetables, which it clothes with a new foliage, and again renews the face of nature—and that the same principle which causes the sensation of *heat* is the cause of fluidity, expands bodies in every direction, enters into every operation in nature, flies from the sun at the rate of 195,000 miles in a second of time, and, by its powerful influence, prevents the whole matter of the universe from being converted into a solid mass!

What, then, can be more delightful to a being furnished with such powers as man, than to trace the secret machinery by which the God of nature accomplishes his designs in the visible world, and displays his infinite power and intelligence—to enter into the hidden springs of Nature's operations, to follow her through all her winding recesses, and to perceive from what simple principles and causes the most sublime and diversified phenomena are produced! It is with this view that the Almighty hath set before us his wondrous works, not to be overlooked, or beheld with a "brute unconscious gaze," but to be investigated, in order that they may be admired, and that in such investigations we may enjoy a sacred pleasure in contemplating the results of his wisdom and intelligence.

TO BUILDERS AND FARMERS.

HIGHLY important and useful improvement in securing Frame buildings against the effects of the external atmosphere.

The subscriber is owner and proprietor of the Patent, taken out in 1832, by Ebenezer Mix, Esq., of Batavia, for his very important improvement in securing houses and other farm buildings against the effects of *heat, frost* and *moisture* in the atmosphere.

This improvement was noticed in the Genesee Farmer, in the fall of 1832, and is now offered to the public notice. Its cheapness and importance to the comfort of buildings strongly recommend it to the attention of a discerning community.

By this improvement the great and long desired point, of disarming the external atmosphere of its unpleasant effects upon the comfort and well being of families is very fully attained.

Applications to the subscriber, post paid, inclosing the inconsiderable equivalent of five dollars, will procure for the applicant the privilege with instructions for using the said Patent right in the erection of one single building or dwelling house.

oct 5-6m JOHN LOWBER.

MONROE GARDEN AND NURSERY,

GREECE, NEAR ROCHESTER, N. Y.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses. Vines, Creepers, Herbaceous, Perennial Plants, Bulbous Roots, &c.

Also, a few hundred of the Morus Multicaulis or Phillipine Mulberry, the white Italian Mulberry by the hundred or thousand, English Hawthorn Quicks, Grape Vines of both native and foreign varieties, mostly of large size, for sale by the single vine, hundred or thousand at reduced prices. The subscriber has a large Green House well filled with a large collection of choice Green-House Plants in good condition.

All orders, by mail or otherwise, will be promptly attended to, and packages delivered in Rochester or at the mouth of Genesee River.

ASA ROWE.

Batavia, Genesee Co., N. Y., Oct. 5, 1833

Orders for Mr. Rowe's Nursery received by the Publishers of this paper.

Catalogues may be had at the office of the Genesee Farmer—will be sent to those who wish them gratis. October 5, 1833. f6m